

A METHOD TO DISTRIBUTE PROGRAMS USING REMOTE JAVA OBJECTS

ABSTRACT OF THE INVENTION

A distributed Java virtual machine method and system for managing distributed heterogeneous network nodes to timely and efficiently meet demand for service requests. Upon receipt of a request for service, Java workload manager (JWLM) of the present invention classifies the request into a particular type of service, places the work on a logical queue to be executed. Routing queues place the work on one of many available nodes. The work is distributed to the nodes based on accounting, availability and past performance of all nodes considered. Changes are made periodically to the system to meet demands for service and/or conserve resources.

JWLM of the present invention learns the needs of programs over time and does not require the intervention of a system administrator. The system does not rely on system specific metrics. JWLM may use performance metrics. Additionally, the present invention allows objects to be distributed and run on distributed workstations by distributing work through the cluster of workstations, while behaving as if it were initiated locally on the machine on which it runs. The similar type of work sent to different workstations may have the same class names, and the classpath may hold different implementations of that object at a particular workstation. Thus, at dynamic compilation time, if a platform has a more efficient feature than others, a work unit is dynamically compiled with the more efficient feature.